WEATHER CONDITIONS ON THE NORTH ATLANTIC DURING AUGUST, 1914.

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The data presented are for August, 1914, and comparison and study of the same should be in connection with those appearing in the REVIEW for that month. The accompanying chart (No. IX) shows for August, 1914, the averages of pressure, temperature, and the prevailing direction of the winds, together with the locations and courses of the more severe storms of the month.

For the month as a whole the distribution of the mean atmospheric pressure over the greater part of the ocean was similar to the average as shown on the Meteorological Chart of the North Atlantic Ocean for August. The Azores high was of normal intensity and position, although of greater area than usual. The center of the Icelandic low is not shown on account of lack of reports from that portion of the ocean, although it was probably not far from the normal position.

The wind and temperature conditions over the greater part of the ocean and adjacent land areas are greatly influenced by the relative positions and intensities of these so-called centers of action, and as the latter appear to have conformed closely to normal, the average winds and temperatures during the month were likewise not far from the normal.

The pressure was remarkably uniform throughout the month, and only three storms of considerable extent occurred, all of which appeared between August 21 and 27. On the 20th a low appeared near latitude 50° and longitude 50°, accompanied by moderate winds. By the 21st this had moved due east to longitude 35°, and increased in intensity. One vessel in the southeast quadrant reported a west-south-west wind of 56 miles an hour. and several other ships recorded velocities of from 40 to 48 miles. On the 22d this low was centered near latitude 54° and longitude 27°, having changed little in intensity, although a number of observations south of the center showed westerly winds of from 48 to 60 miles an hour, From the 22d to the 23d it moved about 5° in a northeasterly direction, and while the barometer had fallen somewhat since the preceding day, the winds had moderated in force, and by the 24th the storm had practically disappeared.

On the map of "Tracks of centers of Low Areas" (Chart III), published in the REVIEW for August, 1914, a storm track is shown beginning on the 15th at a point in southeastern Alberta. This low after moving in a southeasterly direction as far as Omaha, curved slightly toward the northeast, and after following an approximately easterly course, appeared off the coast of Newfoundland on August 23. On the 24th it had moved to latitude 52° and longitude 35°, having increased in intensity, as three vessels in its southwest quadrant each recorded northwest winds of 48 miles an hour. On the 25th it was centered at latitude 53° and longitude 20°, but was apparently weakening, as the barometer readings were from 29.18 to 29.44 inches, while the winds decreased in force. On the 26th traces of this low could be seen near Stornoway on the Scotland coast, but it had lost its force and was fast filling in.

Again the chart shows a storm that first appeared on the weather map in the eastern part of British Columbia on August 20. It crossed the path of the first track about 230 miles east of Miles City, and thence ran nearly parallel to it, keeping from 100 to 300 miles to the northward, appearing near the west coast of Newfoundland on the night of August 24. By the morning of the 25th it had moved in a northeasterly direction to latitude 52° and longitude 52°, but was of light intensity, with moderate winds. On the 26th it was centered near latitude 55° and longitude 40°, having increased in intensity, winds of from 40 to 48 miles an hour, accompanied by rain and hail, being reported. From this point it turned in a northeasterly direction and on the 27th it was near latitude 61° and longitude 27°, the barometer falling to 29.08 inches and the wind increasing somewhat.

This low probably proceeded toward Iceland, but as no reports were received from that part of the ocean it was impossible to indicate its further course. These two storms, both of the Alberta type, were accompanied by little severe weather, but their tracks are especially interesting on account of the long duration and uniformity of movement. While these storms first appeared on the map in western Canada, it is entirely possible that they may have originated in Alaska, as offshoots of the Aleutian low.

OCEAN TEMPERATURES.

The temperature over the ocean, for the month as a whole, differed but little from the normal. The departures were small and irregular, although they seem to show that along the fortieth meridian, from latitude 40° to 50°, the temperature was about 3° below the normal, while along the tenth meridian, west longitude, the departures averaged about +1.5°, and along the American coast they were small and not at all uniform. The departure at Eastport, Me., was +0.1°, Portland −2.1°, and Boston +1.5°. Between Cape May and Jacksonville they were more uniform, ranging from +0.7° at the former place to +1.9° at the latter, while at Key West it was +0.4°, and at Tampa +2.2°. The greatest monthly range within any 5-degree square was 20°; from 50° to 70°, and occurred in the square from latitude 45° to 50° and longitude 65° to 70°, where the water area is much less than the land. In mid-ocean, north of latitude 40°, the range was seldom over 7°, while south of that parallel it was less.

While it rained nearly every day over some portion of the trans-Atlantic steamer route, hail was recorded only on August 26, near latitude 46° and longitude 43°.